



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2022-1050; Project Identifier AD-2021-01257-T]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to supersede Airworthiness Directive (AD) 2007-10-04, which applies to all McDonnell Douglas Model DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), DC-9-87 (MD-87), and MD-88 airplanes. AD 2007-10-04 requires repetitive inspections to detect cracks in the horizontal stabilizer, and related investigative and corrective actions if necessary. Since the FAA issued AD 2007-10-04, it has been determined that certain compliance times and repetitive intervals must be reduced to address the unsafe condition. This proposed AD continues to require the actions specified in AD 2007-10-04 with revised compliance times for certain actions. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110 SK57, Seal Beach, CA 90740-5600; telephone 562 797 1717; Internet <https://www.myboeingfleet.com>. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-1050.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-1050; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, any comments received, and other information. The street address for Docket Operations is listed above.

FOR FURTHER INFORMATION CONTACT: Sean Newell, Aerospace Engineer, Airframe Section, FAA, Los Angeles ACO Branch, 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5266; email: Sean.M.Newell@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include

“Docket No. FAA-2022-1050; Project Identifier AD-2021-01257-T” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend the proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this proposed AD.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Sean Newell, Aerospace Engineer, Airframe Section, FAA, Los Angeles ACO Branch, 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5266; email: Sean.M.Newell@faa.gov. Any commentary that the FAA receives that is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

The FAA issued AD 2007-10-04, Amendment 39-15045 (72 FR 25960, May 8, 2007) (AD 2007-10-04), for all McDonnell Douglas Model DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), DC-9-87 (MD-87), and MD-88 airplanes. AD 2007-10-04 was prompted by reports of cracks found in the horizontal stabilizer in the upper and lower aft skin panels at the aft inboard corner at station XH = 8.2 and in the rear spar upper caps adjacent to the aft skin panel at station XH = 10.0. AD 2007-10-04 requires repetitive inspections to detect cracks in the horizontal stabilizer, and related investigative and corrective actions if necessary. The FAA issued AD 2007-10-04 to detect and correct cracks in the upper and lower aft skin panels and rear spar upper caps, which, if not corrected, could lead to the loss of overall structural integrity of the horizontal stabilizer.

Actions Since AD 2007-10-04 Was Issued

Since the FAA issued AD 2007-10-04, it has been determined that certain compliance times and repetitive intervals must be reduced for the high frequency eddy current (HFEC) surface and open hole inspections of the rear spar upper caps. The FAA received a report from Boeing of a crack found along fasteners in the upper rear spar that was longer than two inches during an inspection of the horizontal rear spar upper cap on a Model DC-9-82 (MD-82) airplane with 69,799 flight hours and 38,520 flight cycles. The crack was discovered prior to the compliance time intervals for the repetitive inspections required by AD 2007-10-04; it was determined that certain compliance times do not provide at least two opportunities to reliably detect dual origin cracks before they reach critical length.

In addition, since the FAA issued AD 2007-10-04, the legal name of the manufacturer has been changed from McDonnell Douglas Corporation to The Boeing Company on the most recent type certificate data sheet for the affected airplane models.

FAA's Determination

The FAA is issuing this NPRM after determining that the unsafe condition described previously is likely to exist or develop on other products of the same type design.

Related Service Information under 1 CFR Part 51

The FAA reviewed Boeing Alert Service Bulletin MD80-55A065, Revision 2, dated October 11, 2021. This service information specifies procedures for repetitive eddy current inspections (HFEC or low frequency eddy current inspections, as applicable) of the horizontal stabilizer; and applicable corrective actions. Corrective actions include stop drilling the end of the crack, trimming out the crack and installing filler, installing a horizontal stabilizer upper and lower aft skin panel splice, replacing the horizontal stabilizer upper and lower aft skin panel, installing bushings and cold working holes, removing the crack and performing a repair, replacing the horizontal stabilizer rear spar upper cap splice, and replacing the splice repair with a new horizontal stabilizer rear spar upper cap.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Proposed AD Requirements in this NPRM

Although this proposed AD does not explicitly restate the requirements of AD 2007-10-04, this proposed AD would retain all requirements of AD 2007-10-04. Those requirements are referenced in the service information identified previously, which, in turn, is referenced in paragraph (g) of this proposed AD. This proposed AD would also reduce certain compliance times. This proposed AD would also require accomplishing the actions specified in the service information described previously. Alternative methods of compliance (AMOCs) previously approved for AD 2007-10-04 are approved for the

corresponding provisions of Boeing Alert Service Bulletin MD80-55A065, dated April 25, 2007, that are required by paragraph (g) of this proposed AD. However, the following AMOCs are canceled as they reference specific inspection intervals that now fall outside of the new inspections requirements:

- FAA Letter Number 120L-14-226a, dated January 29, 2015.
- FAA Letter Number 120L-15-384b, dated November 2, 2015.
- FAA Letter Number 120L-10-345, dated August 3, 2010.

For information on the procedures and compliance times, see this service information at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-1050.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 22 airplanes of U.S. registry. The FAA estimates the following costs to comply with this proposed AD:

Estimated costs				
Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspections (retained actions from AD 2007-10-04)	8 work-hours X \$85 per hour = \$680, per inspection cycle	\$0	\$680, per inspection cycle	\$14,960 per inspection cycle
Inspections (new proposed action)	Up to 20 work-hours X \$85 per hour = \$1,700 per inspection cycle	\$0	Up to \$1,700 per inspection cycle	Up to \$37,400 per inspection cycle

The FAA estimates the following costs to do any necessary corrective actions (e.g., repairs, replacements, installation) that would be required based on the results of the

proposed inspection. The FAA has no way of determining the number of aircraft that might need these corrective actions:

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Repair, replacement and installation of upper or lower aft skin panel or splice	Up to 656 work-hours X \$85 per hour = \$55,760	Up to \$128,892	Up to \$184,652
Stop drill repair	4 work-hours X \$85 per hour = \$340	\$0	\$340
Trim out	8 work-hours X \$85 per hour = \$680	\$0	\$680
Install bushings and cold work	26 work- hours X \$85 per hour = \$2,210	\$9,827	\$12,037
Crack removal and repair	6 work hours X \$85 per hour = \$510	\$2,033	\$2,543
Replace rear spar upper cap	368 work-hours X \$85 per hour = \$31,280	\$36,402	\$67,682

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency’s authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority

because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA has determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that the proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Would not affect intrastate aviation in Alaska, and
- (3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by:

- a. Removing Airworthiness Directive (AD) 2007-10-04, Amendment 39-15045 (72 FR 25960, May 8, 2007), and
- b. Adding the following new AD:

The Boeing Company: Docket No. FAA-2022-1050; Project Identifier AD-2021-01257-

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(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) action by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD replaces AD 2007-10-04, Amendment 39-15045 (72 FR 25960, May 8, 2007) (AD 2007-10-04).

(c) Applicability

This AD applies to all The Boeing Company Model DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), DC-9-87 (MD-87), and MD-88 airplanes, certificated in any category.

(d) Subject

Air Transport Association (ATA) of America Code 55, Stabilizers.

(e) Unsafe Condition

This AD was prompted by reports of cracks found in the horizontal stabilizer in the upper and lower aft skin panels at the aft inboard corner at station XH = 8.2 and in the rear spar upper caps adjacent to the aft skin panel at station XH = 10.0; and by a determination that certain compliance times and inspection intervals must be reduced. The FAA is issuing this AD to detect and correct cracks in the upper and lower aft skin panels and rear spar upper caps, which, if not corrected, could lead to the loss of overall structural integrity of the horizontal stabilizer.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Repetitive Inspections and Corrective Actions

Except as specified in paragraph (h) of this AD: At the applicable times specified in paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin MD80-55A065, Revision 2, dated October 11, 2021, do an eddy current inspection to detect any cracking in the horizontal stabilizer and do all applicable repetitive inspections and corrective actions, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin MD80-55A065, Revision 2, dated October 11, 2021. Do all applicable repetitive inspections and corrective actions at the times specified in paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin MD80-55A065, Revision 2, dated October 11, 2021.

(h) Exceptions to Service Information Specifications

(1) Where the Compliance Time columns of the tables in paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin MD80-55A065, Revision 2, dated October 11, 2021, use the phrase “the original issue date of this service bulletin,” this AD requires using May 23, 2007 (the effective date of AD 2007-10-04).

(2) Where the Compliance Time columns of the tables in paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin MD80-55A065, Revision 2, dated October 11, 2021, use the phrase “the Revision 2 date of this service bulletin,” this AD requires using “the effective date of this AD.”

(i) Credit for Previous Actions

(1) This paragraph provides credit for the actions specified in paragraph (g) of this AD, if those actions were performed before the effective date of this AD using Boeing Alert Service Bulletin MD80-55A065, dated April 25, 2007. This service information was incorporated by reference in AD 2007-10-04, Amendment 39-15045 (72 FR 25960, May 8, 2007).

(2) This paragraph provides credit for the actions specified in paragraph (g) of this AD, if those actions were performed before the effective date of this AD using Boeing

Alert Service Bulletin MD80-55A065, Revision 1, dated September 23, 2008. This service information is not incorporated by reference in this AD.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Los Angeles ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (k)(1) of this AD. Information may be emailed to: 9-ANM-LAACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair, modification, or alteration required by this AD if it is approved by The Boeing Company Organization Designation Authorization (ODA) that has been authorized by the Manager, Los Angeles ACO Branch, FAA, to make those findings. To be approved, the repair method, modification deviation, or alteration deviation must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(4) AMOCs approved for AD 2007-10-04 are approved as AMOCs for the corresponding provisions of Boeing Alert Service Bulletin MD80-55A065, dated April 25, 2007, that are required by paragraph (g) of this AD, except the AMOCs specified in paragraphs (j)(4)(i) through (iii) of this AD are not approved as AMOCs for this AD.

(i) FAA Letter Number 120L-14-226a, dated January 29, 2015.

(ii) FAA Letter Number 120L-15-384b, dated November 2, 2015.

(iii) FAA Letter Number 120L-10-345, dated August 3, 2010.

(k) Related Information

(1) For more information about this AD, contact Sean Newell, Aerospace Engineer, Airframe Section, FAA, Los Angeles ACO Branch, 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5266; email: Sean.M.Newell@faa.gov.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110 SK57, Seal Beach, CA 90740-5600; telephone 562 797 1717; Internet <https://www.myboeingfleet.com>. You may view this referenced service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

Issued on August 4, 2022.

Gaetano A. Sciortino, Deputy Director for Strategic Initiatives,
Compliance & Airworthiness Division,
Aircraft Certification Service.

[FR Doc. 2022-19901 Filed: 9/14/2022 8:45 am; Publication Date: 9/15/2022]